

§Appl. No. 10/089,688
Amdt. dated March 16, 2005
Reply to Office Action of, November 16, 2004

Listing of Claims:

Please amend the claims as follows:

Listing of Claims:

Claim 1 (Currently Amended) An isolated human polypeptide selected from one of the groups group consisting of:

- (a) an isolated polypeptide encoded by a polynucleotide comprising the sequence the sequence of SEQ ID NO:1;
- (b) an isolated polypeptide comprising a polypeptide sequence having comprising at least 95% identity along its entire length to the polypeptide sequence of SEQ ID NO:2 and which hybridizes to the complement of SEQ ID NO:1 under stringent hybridization conditions comprising overnight incubation at 42°C in a solution comprising: 50% formamide, 5xSSC (150mM NaCl, 15mM trisodium citrate), 50 mM sodium phosphate (pH7.6), 5x Denhardt's solution, 10 % dextran sulfate, and 20 microgram/ml denatured, sheared salmon sperm DNA; followed by washing the filters in 0.1x SSC at 65°C;
- (c) an isolated polypeptide having comprising at least 95% identity along its entire length to the polypeptide sequence of SEQ ID NO:2 and which hybridizes to the complement of SEQ ID NO:1 under stringent hybridization conditions comprising overnight incubation at 42°C in a solution comprising: 50% formamide, 5xSSC (150mM NaCl, 15mM trisodium citrate), 50 mM sodium phosphate (pH7.6), 5x Denhardt's solution, 10 % dextran sulfate, and 20 microgram/ml denatured, sheared salmon sperm DNA; followed by washing the filters in 0.1x SSC at 65°C; and
- (d) the polypeptide sequence of SEQ ID NO:2 and

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(e) ~~fragments and variants of such polypeptides in (a) to (d).~~

Claim 2 (Original) The isolated polypeptide as claimed in claim 1 comprising the polypeptide sequence of SEQ ID NO:2.

Claim 3 (Currently Amended) The isolated polypeptide as claimed in claim 1 which is consists of the polypeptide sequence of SEQ ID NO:2.

Claim 4 (Original) An isolated polynucleotide selected from one of the groups consisting of:

(a) an isolated polynucleotide comprising a polynucleotide sequence having at least 95% identity to the polynucleotide sequence of SEQ ID NO:1;

(b) an isolated polynucleotide having at least 95% identity to the polynucleotide of SEQ ID NO:1;

(c) an isolated polynucleotide comprising a polynucleotide sequence encoding a polypeptide sequence having at least 95% identity to the polypeptide sequence of SEQ ID NO:2;

(d) an isolated polynucleotide having a polynucleotide sequence encoding a polypeptide sequence having at least 95% identity to the polypeptide sequence of SEQ ID NO:2;

(e) an isolated polynucleotide with a nucleotide sequence of at least 100 nucleotides obtained by screening a library under stringent hybridization conditions with a labeled probe having the sequence of SEQ ID NO: 1 or a fragment thereof having at least 15 nucleotides;

(f) a polynucleotide which is the RNA equivalent of a polynucleotide of (a) to (e);

or a polynucleotide sequence complementary to said isolated polynucleotide

and polynucleotides that are variants and fragments of the above mentioned polynucleotides or that

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are complementary to above mentioned polynucleotides, over the entire length thereof.

Claim 5 (Original) An isolated polynucleotide as claimed in claim 4 selected from the group consisting of:

- (a) an isolated polynucleotide comprising the polynucleotide of SEQ ID NO:1;
- (b) the isolated polynucleotide of SEQ ID NO:1;
- (c) an isolated polynucleotide comprising a polynucleotide sequence encoding the polypeptide of SEQ ID NO:2; and
- (d) an isolated polynucleotide encoding the polypeptide of SEQ ID NO:2.

Claim 6 (Original) An expression system comprising a polynucleotide capable of producing a polypeptide of claim 1 when said expression vector is present in a compatible host cell.

Claim 7 (Previously Presented) A recombinant host cell comprising the expression vector of claim 6 or a membrane thereof expressing the polypeptide of an isolated polypeptide selected from one of the groups consisting of:

- (a) an isolated polypeptide encoded by a polynucleotide comprising the sequence of SEQ ID NO:1;
- (b) an isolated polypeptide comprising a polypeptide sequence having at least 95% identity to the polypeptide sequence of SEQ ID NO:2;
- (c) an isolated polypeptide having at least 95% identity to the polypeptide sequence of SEQ ID NO:2; and

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- (d) the polypeptide sequence of SEQ ID NO:2 and
- (e) fragments and variants of such polypeptides in (a) to (d).

Claim 8 (Currently Amended) A process for producing a polypeptide of an isolated polypeptide selected from one of the groups consisting of:

- (a) an isolated polypeptide encoded by a polynucleotide comprising ~~the sequence~~ the sequence of SEQ ID NO:1;
- (b) an isolated polypeptide comprising a polypeptide sequence having at least 95% identity to the polypeptide sequence of SEQ ID NO:2;
- (c) an isolated polypeptide having at least 95% identity to the polypeptide sequence of SEQ ID NO:2; and
- (d) the polypeptide sequence of SEQ ID NO:2 and
- (e) fragments and variants of such polypeptides in (a) to (d).

comprising the step of culturing a host cell as defined in claim 7 under conditions sufficient for the production of said polypeptide and recovering the polypeptide from the culture medium.

Claim 9 (Currently Amended) A fusion protein ~~consisting of the~~ comprising an Immunoglobulin Fc-region and ~~any one~~ a polypeptide of claim 1.

Claim 10 (Previously Presented) An antibody immunospecific for the polypeptide of claim 1.

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Claim 11 (Currently Amended) A method for screening to identify compounds that stimulate or inhibit the function or level of the polypeptide of claim 1 comprising a method selected from the group consisting of:

- (a) measuring or, detecting, quantitatively or qualitatively, the binding of a candidate compound to the polypeptide (or to the cells or membranes expressing the polypeptide) or a fusion protein thereof by means of a label directly or indirectly associated with the candidate compound;
- (b) measuring the competition of binding of a candidate compound to the polypeptide (or to the cells or membranes expressing the polypeptide) or a fusion protein thereof in the presence of a labeled ~~competitor~~ competitor;
- (c) testing whether the candidate compound results in a signal generated by activation or inhibition of the polypeptide, using detection systems appropriate to the cells or cell membranes expressing the polypeptide;
- (d) mixing a candidate compound with a solution containing a polypeptide of claim 1, to form a mixture, measuring activity of the polypeptide in the mixture, and comparing the activity of the mixture to a control mixture which contains no candidate compound; or
- (e) detecting the effect of a candidate compound on the production of mRNA encoding said polypeptide or said polypeptide in cells, using for instance, an ELISA assay, and
- (f) producing said compound according to biotechnological or chemical standard techniques.

Claim 12 (New) The isolated polypeptide as claimed in claim 1, which has calcium-binding activity.

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Claim 13 (New) The isolated polypeptide as claimed in claim 1, which is encoded by a polynucleotide comprising the sequence of SEQ ID NO: 1.

Claim 14 (New) The isolated polypeptide as claimed in claim 1, which is an isolated polypeptide comprising a polypeptide sequence comprising at least 95% identity along its entire length to the polypeptide sequence of SEQ ID NO:2 and which hybridizes to the complement of SEQ ID NO:1 under stringent hybridization conditions comprising overnight incubation at 42°C in a solution comprising: 50% formamide, 5xSSC (150mM NaCl, 15mM trisodium citrate), 50 mM sodium phosphate (pH7.6), 5x Denhardt's solution, 10 % dextran sulfate, and 20 microgram/ml denatured, sheared salmon sperm DNA; followed by washing the filters in 0.1x SSC at 65°C.

Claim 15 (New) The isolated polypeptide as claimed in claim 1, which is an isolated polypeptide comprising at least 95% identity along its entire length to the polypeptide sequence of SEQ ID NO:2 and which hybridizes to the complement of SEQ ID NO:1 under stringent hybridization conditions comprising overnight incubation at 42°C in a solution comprising: 50% formamide, 5xSSC (150mM NaCl, 15mM trisodium citrate), 50 mM sodium phosphate (pH7.6), 5x Denhardt's solution, 10 % dextran sulfate, and 20 microgram/ml denatured, sheared salmon sperm DNA; followed by washing the filters in 0.1x SSC at 65°C.

Claim 16 (New) The isolated polypeptide as claimed in claim 14, which has calcium-binding activity.

Claim 17 (New) The isolated polypeptide as claimed in claim 15, which has calcium-binding activity.